

Remarks/Arguments

Claims 1-17 are pending. Claims 1, 2, 3, 4, 7, 8, 9, 10, 11 and 12 have been amended to more clearly and distinctly recite the subject matter that applicants regard as their invention. Claims 13-17 have been added. No new matter is believed to be added by the present amendment.

Regarding the lack of an abstract, an abstract is submitted herewith.

Regarding the formalities objections to the claims, the claims have been amended as follows. In claims 1, 2, 3, 4, 7, 8, 9, and 10, the limitation "said peripheral device" has been amended to read "said peripheral consumer electronic device."

In claim 1, line 2, the limitation "digital display device" has been amended to read "display device."

In claim 2, the limitation "said digital data" has been amended to read "digital OSD video data." The limitation "said display device" is submitted to be proper in view of the amendment to claim 1.

In claim 3, the limitation "said menu" has been amended to read "said on-screen display menu." The limitation of "said updated digital video data" in line 4 of amended claim 3 is submitted to have sufficient antecedent basis in view of the recitation "said navigation means generates updated digital video data..." on lines 2-3.

Applicants submit that the objection to the claims is overcome in view of the above amendments.

Rejection of claims 1 and 4-6 under 35 U.S.C. 102(e) as being anticipated by Ludke et al. (US 6421069).

Applicants submit that for the reasons discussed below, present claims 1 and 4-6 are not anticipated by Ludke et al.

The present invention relates to providing a minimal level of interoperability between peripheral devices connected via a digital bus. In that regard, the present invention recognizes that it may be desirable to allow users to control the peripheral devices in a manner to which they are accustomed.

In current systems, the video data associated with an on-screen display is **generated in the peripheral device** and is transmitted along with the video

content to a display device on a composite video connection. The display device processes the received combined data to provide the on-screen display. The user then directly interacts with the peripheral device via a direct link, e.g., remote control or panel, using the on-screen display menu shown on the display device.

However, the present invention also recognizes that a disadvantage of the above system with regard to devices connected via a digital bus is that an additional encoder is required for encoding the combined video content and OSD video data (see Fig. 2, MPEG encoder 15', and Fig. 4, and their associated description). The present invention overcomes the above by transferring the video content and the digital OSD video data **as separate data** via the digital bus, thus obviating the need for an additional encoder for the OSD video data in the peripheral device. The video content and the digital OSD video data are then combined and processed in the display device to present the OSD menu to the user (page 14, last paragraph - page 15, first full paragraph). Thus, notable features of the present invention include **generating, in the peripheral device**, the digital OSD data in the form of **video data**, and transferring the digital video content and the digital OSD data **as separate data** via the digital bus to the display device.

More specifically, amended claim 1 recites:

1. *A peripheral consumer electronic device comprising:*
... (c) means for **generating, in said peripheral consumer electronic device, digital OSD video data** representative of an on-screen display menu associated with said peripheral consumer electronic device, said digital OSD video data being capable of being displayed on said display device; and
(d) means for transferring said digital video content and said digital OSD video data capable of being displayed **as separate data via said digital bus** to said display device, whereby said digital video content and said digital OSD video data may be subsequently combined and displayed on said display device. *(emphasis added)*

Applicants submit that nowhere does Ludtke et al disclose these features.

Ludtke teaches a system for providing a graphical user interface for controlling a device connected to a network, wherein the graphical user interface is generated using **self-describing information** included with the device. A controller device, such as a computer, or a television having a microprocessor, **reads the self-describing information from a peripheral device** and generates the video data associated with the graphical user interface.

The self-describing information includes a graphical representation of the device, information regarding **control descriptors**, and information regarding **functionality descriptors** (col. 6, lines 10-15). Ludtke states that:

*"The control descriptor section 28 includes a **description** of each available physical button or control included in the device 10. Within the control descriptor section 28, there is preferably a **description** of each physical button or other control on the device 10, including localized text which provides a name for the control feature presented, the type of control and the location of the control on the device 10... **This information is then used by the computer system 18 or another device to generate a graphical user interface** through which the user can control the operation of the device. (emphasis added)" (col. 6, lines 43-49)*

Ludtke also states:

*"The functionality descriptor section 30 includes information which provides access to the control interface used by the device 10. **The functionality descriptor information provides the information necessary for the: computer system 18 or another device to invoke the appropriate commands** for controlling the operation of the device 10 with the available controls. (emphasis added)" (col. 7, lines 1-7)*

As is clear from above, **the computer, or television, generates the OSD** using the self-describing information received from the peripheral device. In that regard, Ludtke notes that "the specific graphical user interface presented to the user depends on the type of other devices available to the device 10, through the network." (col. 7, lines 47-50) As such, it is clear that Ludtke et al. does not disclose "**generating, in said peripheral consumer electronic device, digital OSD data in the form of video data and representative of an on-screen display menu associated with said peripheral consumer electronic device**" as recited in the present claims.

Ludtke et al does note that "When a device is coupled in a configuration without a computer system, the self-describing information and other software available within the device will be used to present a graphical user interface to the user." (col. 5, lines 26-29) However, nowhere does Ludtke disclose the manner in which the graphical user interface is **actually generated or transferred** to the display device. It merely notes that the graphical user interface is generated using

the self-describing information and other software in the device without providing any description of how such a feature is implemented.

In this regard, it is notable that Ludtke et al. seeks to provide a system that controls the peripheral device in a manner that is entirely distinguishable from the manner of control of the present invention.

The present invention provides for generating OSD data in the peripheral device and transferring the digital video content and the OSD data as separate data via the digital bus to the display device. Such a system allows the user to interact with the peripheral device in a manner familiar to the user, that is, **via a direct link with the peripheral device** using the OSD generated in the peripheral device, without requiring an additional MPEG encoder for the OSD data in the peripheral device.

By contrast, Ludtke et al seeks to provide a system that allows the user to control the peripheral device **via a central control device**, such as the computer or television. Specifically, Ludtke et al states:

The user currently programs the VCR, in such a configuration, through text-based menus driven by the VCR and displayed on the television. To enter commands related to this programming operation, the user utilizes either the front panel of the VCR or a remote control device which sends transmissions to the VCR. There is currently no manner to control the operation of the VCR through the television. (col. 2, lines 58-65)

In view of the fact that Ludtke et al is completely silent as to how the graphical user interface is generated in a configuration without a computer, and that the system of Ludtke et al controls the peripheral devices in a different manner than the present invention, applicants submit that Ludtke fails to disclose or suggest the above cited limitation of amended claim 1.

Furthermore, applicants submit that Ludtke fails to disclose or suggest a second notable limitation of the present claims, that is nowhere does Ludtke et al disclose the limitation "... **transferring said digital video content and said digital OSD data capable of being displayed as separate data via said digital bus to said display device, whereby said digital video content and said digital OSD data may be subsequently combined and displayed on said display device.**" The

advantage of such a feature has been described above. Ludtke et al. is completely silent as to this feature.

In view of the above, applicants submit that Ludtke et al fails to disclose notable limitations of the present claims, and that as such, the present claims are not anticipated by Ludtke.

Rejection of claim 12 under 35 U.S.C. 102(e) as being anticipated by Iwamura (US 5883621).

Applicants submit that for the reasons discussed below, present claim 12 is not anticipated by Iwamura.

Similar to amended claim 1, amended claim 12 recites "...means for **receiving, from said peripheral device, digital video data** representative of an on-screen display menu associated with said peripheral device, said digital data being capable of being displayed, said digital video data and said digital video content being received **as separate data** via said digital bus... (emphasis added)" Iwamura fails to disclose or suggest such a feature.

Iwamura discloses a system for generating a topology map to indicate various component that make up a system. In this regard, Iwamura teaches **receiving device type information from the configuration ROM** of each device attached to the system (col. 5, lines 48-50). The information from the configuration ROM is used to generate an icon representative of the device on the topology map (col. 6, lines 6-18). In this regard, cited col. 5, line 49 - col. 6, line 18 describe the use of icons to represent the devices on the connection map, and cited col. 4, lines 19-23 and col. 8, lines 6-10 describe the mixing of the output of the OSD block 308 with a decoded video signal to generate an output signal.

However, nowhere does Iwamura teach or suggest receiving from the peripheral device "... digital video data representative of an on-screen display menu associated with said peripheral device, said digital data being capable of being displayed, said digital video data and said digital video content being received as separate data via said digital bus..." In Iwamura, the device information is received from the configuration ROM and an icon is generated thereby. Therefore, applicants submit that Iwamura fails to disclose or suggest a notable limitation of amended claims 12, and thus, amended claim 12 is not anticipated by Iwamura.

Rejection of claims 2-3, 7-8 and 11 under 35 U.S.C. 103(a) as being unpatentable over Ludke et al. (US 6421069).

Applicants submit that for the reasons discussed below, present claims 2-3, 7-8 and 11 are patentably distinguishable over the teachings of Ludke et al.

As discussed above with regard to claim 1, applicants submit that Ludtke also fails to disclose or suggest notable features of claims 7 and 9, which recite the above-mentioned features in method form. Applicants respectfully submit that the further teachings of Ludtke cited with respect to claims 2-3, 7-8 and 11 fail to cure the defect of Ludtke et al as applied to claims 1, 7 and 9. Therefore, applicants submit that claims 2-3, 7-8 and 11, which depend from claims 1, 7 and 9, respectively, are also patentably distinguishable over the teachings of Ludtke et al.

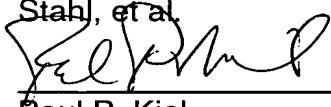
Rejection of claims 9-10 under 35 U.S.C. 103(a) as being unpatentable over Ludke et al. (US 6421069) in view of P1394 Draft 8.0v2.

Applicants submit that for the reasons discussed below, present claims 9-10 are patentably distinguishable over the cited prior art references.

Claim 9 has been amended to recite the limitation "... generating, in said peripheral consumer electronic device, digital video data representative of an on-screen display menu associated with said peripheral consumer electronic device." For the reasons discussed above, applicants submit that Ludtke et al fails to disclose or suggest this limitation. P1394 Draft 8.0v2 is cited as disclosing the use of an asynchronous transfer mechanism and controlling the equipment connected to the 1394 bus using FCP. However, this fails to cure the defect of Ludtke et al as applied to claim 9, and therefore, applicants submit that amended claim 9, and claim 10, which depends therefrom, are patentably distinguishable over the combination of Ludtke et al and P1394 Draft 8.0v2.

Having fully addressed the Examiner's rejections, Applicants submit that the present application is in condition for allowance and respectfully request such action. No fee is believed due in regard to the present amendment. However, if a fee is due, please charge the fee to Deposit Account 07-0832. Should any questions arise regarding any of the above, the Examiner is requested to contact the undersigned at 609-734-6815.

Respectfully submitted,
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